

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently amended) A multiple laser treatment apparatus, comprising:

- (a) n lasers, wherein $n > 1$ and each of said n lasers delivers a laser treatment beam selected for a treatment, and wherein said laser treatment beams have different laser beam parameters; and
- (b) a mirror-based optical delivery device to deliver said laser treatment beams in a combined treatment beam focused to a spot size of 0.1 mm or less, wherein said optical delivery device comprises delivery means for scanning said combined treatment beam in a three-dimensional scanning pattern to treat within a volume of biological tissue that undergoes a treatment.

2. (Currently amended) The apparatus as set forth in claim 1, wherein said laser treatment beams have ~~at least one of~~ different three-dimensional delivery parameters.

3-5. (Cancelled)

6. (Previously presented) The apparatus as set forth in claim 1, further comprising an optical component to select a laser beam parameter of one of said laser treatment beams.

7. (Previously presented) The apparatus as set forth in claim 6, wherein said optical component is one of a beam profiler, a collimator, a spherical element, an aspherical element and a parabolic element.

8. (Previously presented) The apparatus as set forth in claim 1, further comprising means for controlling said n lasers.

9. (Previously presented) The apparatus as set forth in claim 8, wherein said means for controlling comprises a single control panel.

10. (Previously presented) The apparatus as set forth in claim 1, further comprising means for adjusting a laser beam parameter of one of said laser treatment beams.

11. (Previously presented) The apparatus as set forth in claim 1, wherein said n lasers comprise a semiconductor diode laser.

12. (Previously presented) The apparatus as set forth in claim 1, further comprising an optical path to transmit said laser treatment beams to said optical delivery device, wherein said optical path is one of an optical fiber, an articulated arm and a waveguide.

13-18. (Cancelled)

19. (Previously presented) The apparatus as set forth in claim 1, wherein said optical delivery device further comprises endoscopic delivery means for delivering said combined treatment beam to said biological tissue.

20. (Previously presented) The apparatus as set forth in claim 1, wherein said optical delivery device further comprises:

n optical components aligned on an optical path to receive said laser treatment beams from said n lasers, wherein each of said n optical components directs and combines one of said laser treatment beams of said n lasers along said optical path.

21. (Previously presented) The apparatus as set forth in claim 20, wherein said n optical components comprise at least one of a wavelength selective mirror, a beam splitter and a wavelength selective filter.

22. (Previously presented) The apparatus as set forth in claim 20, wherein said optical delivery device further comprises means for adjusting a position of one of said n optical components with respect to said optical path.

23. (Previously presented) The apparatus as set forth in claim 20, wherein said optical delivery device further comprises means for selecting at least two of said laser treatment beams to be included in said combined treatment beam.

24. (Cancelled)

25. (Previously presented) The apparatus as set forth in claim 1, wherein said treatment is a medical treatment, and said laser treatment beams are medically useful treatment beams.

26. (Previously presented) The apparatus as set forth in claim 1, further comprising means for diagnosing said biological tissue.

27. (Previously presented) The apparatus as set forth in claim 26, wherein said means for diagnosing comprises a diagnostic system, wherein said diagnostic system maps an area of said biological tissue using fluorescent emission.

28. (Original) The apparatus as set forth in claim 1, wherein said apparatus is a handheld delivery apparatus.

29. (Previously presented) The apparatus as set forth in claim 28, wherein said handheld delivery apparatus is a portable and transferable miniature handheld delivery apparatus with dimensions no greater than 6" by 12" by 20".

30. (Cancelled)

31. (Currently amended) A multiple laser treatment apparatus, comprising:

- (a) n lasers, wherein $n > 2$ and each of said n lasers delivers a laser treatment beam, and wherein said laser treatment beams have different laser beam parameters;

- (b) means for selecting at least two of said laser treatment beams for a treatment;
- (c) means for simultaneously delivering said selected ones of said laser treatment beams in a combined treatment beam focused to a spot size of 0.1 mm or less at a substance that undergoes said treatment, and-
- (d) a mirror-based scanner for scanning the combined treatment beam in a three-dimensional pattern to treat within a volume of the substance, the mirror-based scanner including two or more reflective elements separated by an adjustable separation wherein adjusting the separation of the reflective elements scans the combined treatment beam within the volume.

32. (Previously presented) The apparatus as set forth in claim 31, wherein said laser treatment beams have different spot sizes at the surface of the substance.

33. (Previously presented) The apparatus as set forth in claim 31, wherein said means for selecting comprises an optical component to select a laser beam parameter of one of said laser treatment beams.

34. (Previously presented) The apparatus as set forth in claim 31, wherein said means for selecting comprises means for adjusting a laser beam parameter of one of said laser treatment beams.

35-40. (Cancelled)

41. (Previously presented) The apparatus as set forth in claim 31, wherein said means for delivering comprises endoscopic delivery means for delivering said combined treatment beam within said substance.

42. (Cancelled)

43. (Previously presented) The apparatus as set forth in claim 31, further comprising means for diagnosing said substance to determine said treatment.

44. (Previously presented) The apparatus as set forth in claim 43, wherein said means for diagnosing comprises a diagnostic system, wherein said diagnostic system generates a fluorescent map of said substance using fluorescent emission.

45. (Currently amended) A method for laser treatment, comprising:

- (a) providing n lasers, wherein $n > 2$ and each of said n lasers delivers a laser treatment beam, and wherein said laser treatment beams have different laser beam parameters;
- (b) selecting at least two of said laser treatment beams for a treatment; and
- (c) simultaneously delivering said at least two of said laser treatment beams in a combined treatment beam focused to a spot size of 0.1 mm or less at a substance that undergoes said treatment, and

(d) scanning said combined treatment beam in a three-dimensional pattern to treat ~~within~~ a volume of the substance, wherein the scanning comprises adjusting a separation between two or more reflective elements.

46. (Currently amended) The method as set forth in claim 45, wherein said laser treatment beams have ~~at least one of~~ different temporal parameters.

47. (Previously presented) The method as set forth in claim 45, wherein selecting said at least two of said laser treatment beams comprises providing an optical component to select a laser beam parameter of one of said laser treatment beams.

48. (Previously presented) The method as set forth in claim 45, wherein selecting said at least two of said laser treatment beams comprises adjusting a laser beam parameter of one of said laser treatment beams.

49-52. (Cancelled)

53. (Previously presented) The method as set forth in claim 45, wherein simultaneously delivering said at least two of said laser treatment beams comprises providing endoscopic delivery means for delivering said combined treatment beam within said substance.

54. (Cancelled)

55. (Previously presented) The method as set forth in claim 45, further comprising providing means for diagnosing said substance to determine said treatment.

56. (Currently amended) The method as set forth in claim 55, wherein said means for diagnosing comprises a diagnostic system, wherein said diagnostic system generates a fluorescent map of said substance using fluorescent emission.

57-68. (Cancelled)

69. (Previously presented) The apparatus as set forth in claim 1, wherein said optical delivery device further comprises a first mirror, and a second mirror, and means for adjusting a position of said first mirror with respect to said second mirror.

70. (Cancelled)

71. (Previously presented) The apparatus as set forth in claim 69, wherein said first mirror is convex and said second mirror is concave.

72. (Previously presented) The apparatus as set forth in claim 1, wherein said optical delivery device is configured to preserve an optical mode of each of said laser treatment beams.

73. (Previously presented) The apparatus as set forth in claim 1, further comprising means for selecting a treatment plan for said biological tissue.

74. (Previously presented) The apparatus as set forth in claim 73, wherein said treatment plan specifies at least two of said laser treatment beams to be included in said combined treatment beam.

75. (Previously presented) The apparatus as set forth in claim 73, wherein said means for selecting said treatment plan comprises means for selecting said treatment plan from a database of treatment plans.

76. (Previously presented) The apparatus as set forth in claim 73, wherein said means for selecting said treatment plan comprises means for selecting said treatment plan based on data related to said biological tissue.

77. (Previously presented) The apparatus as set forth in claim 73, wherein said means for selecting said treatment plan comprises means for selecting said treatment plan based on entered data, wherein entered data comprises at least one of patient data, treatment plan data, complaint data and disease data.

78. (Currently amended) A laser treatment apparatus, comprising:

- (a) n lasers, wherein $n > 1$ and each of said n lasers is configured to deliver a laser treatment beam;
- (b) a mirror-based optical delivery device configured to accept the laser treatment beam from each of said n lasers, wherein said mirror-based optical delivery device

comprises a convex mirror and a concave mirror and wherein said mirror-based optical delivery device combines the laser treatment beams into a combined laser treatment beam focused to a spot size of 0.1 mm or less in which each of said laser treatment beams is essentially co-propagating;

(c) a selection device that selects a laser beam parameter of one or more laser treatment beams for a treatment; and

wherein said mirror-based optical delivery device delivers said combined laser treatment beam to a substance that undergoes a treatment and scans said combined laser treatment beam in a three-dimensional scanning pattern to treat ~~within~~ a volume of said substance.

79. (Previously presented) The laser treatment apparatus as set forth in claim 78, wherein said mirror-based optical delivery device scans said laser treatment beam in a three-dimensional scanning pattern at least in part by adjusting a separation between the concave and convex mirror.

80. (Previously presented) The apparatus as set forth in claim 78, wherein said laser beam parameter is one of a wavelength, a fluence, a power level, an energy level, a temporal parameter, a geometrical parameter, a spot size and a three-dimensional delivery parameter.

81. (Previously presented) The apparatus as set forth in claim 78, further comprising means for generating a fluorescent map of said substance using fluorescent emission and means for analyzing said fluorescent map.

82. (Previously presented) The apparatus as set forth in claim 1, wherein said n lasers comprise at least one CO₂ laser.

83. (Previously presented) The apparatus as set forth in claim 82, wherein said n lasers further comprise at least one Alexandrite laser.

84. (Previously presented) The apparatus as set forth in claim 1, wherein said n lasers comprise at least one ablative laser and at least one nonablative laser.

85. (Cancelled)

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